Using Macromedia Spectra 1.5.2

Macromedia Spectra 1.5.2 is an update release to version 1.5.1 distributed through the Macromedia Spectra Community Source Project website to existing Macromedia Spectra 1.5.1 customers. This website is the distribution location for all Macromedia Spectra updates.

Macromedia Spectra 1.5.2 updates both the evaluation and fully licensed versions of Spectra 1.5.1. Along with numerous bug fixes, Macromedia Spectra 1.5.2 lets your Macromedia Spectra applications run on ColdFusion MX Server Enterprise Edition.

All future updates to Macromedia Spectra will be based on version 1.5.2, and all future support will require that you use Macromedia Spectra version 1.5.2.

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What's new in Macromedia Spectra 1.5.2

Macromedia Spectra 1.5.2 contains the following new features:

- **Support for ColdFusion MX Server Enterprise Edition** Macromedia Spectra 1.5.2 is compatible with ColdFusion MX Server Enterprise Edition, the latest version of ColdFusion.

  Note: Macromedia Spectra 1.5.2 is not supported on ColdFusion MX for J2EE Application Servers, the edition that enables ColdFusion applications to run on application servers such as Macromedia JRun, IBM WebSphere, Sun ONE, and BEA WebLogic.

- **New security implementation** Macromedia Spectra 1.5.2 contains a new security mechanism that replaces Netegrity SiteMinder. The new security mechanism does not requires source code changes to your Macromedia Spectra application.
- **Bug fixes** All approved bug fixes that have been released on the Macromedia Spectra Community Source Project at http://spectrasource.macromedia.com/ have been included in this release.

Note: Macromedia Spectra 1.5.2 contains no COAPI schema changes, so database migration is not necessary.

Installing Macromedia Spectra

Macromedia Spectra 1.5.2 is compatible with both ColdFusion 5 Server Enterprise Edition and ColdFusion MX Server Enterprise Edition with the ColdFusion MX Updater.

The latest release notes for Macromedia Spectra are located at http://www.macromedia.com/v1/developer/documentation/allairespectra.cfm.

Read the following sections before installing Macromedia Spectra on either ColdFusion 5 or ColdFusion MX.

Installing Macromedia Spectra on ColdFusion 5

To install Macromedia Spectra 1.5.2 on a system running ColdFusion 5 Server Enterprise Edition:

1 Make sure you are running version 1.5.1 of Macromedia Spectra.

2 Back up your application and your databases.

  Note: If there is any chance that you will want to restore Macromedia Spectra 1.5.1, backup your Policy Database. You will need to revert to your backup copy of the Policy Database as part of restoring Macromedia Spectra 1.5.1.

3 If you modified any Macromedia Spectra tags, make sure you write your modified tags to the mods directory. The Macromedia Spectra installer does not overwrite the mods directory.

  If you did not write your modified tags to the mods directory, but instead modified them in the Macromedia directory structure, one or more of your modified tags might be overwritten if Macromedia Spectra 1.5.2 contains a modified version of that tag.

4 Shut down all ColdFusion services.

5 Install Macromedia Spectra 1.5.2.

6 Start the ColdFusion services.

7 Run the ColdFusion page at the following URL to start the Macromedia Spectra Webtop:

http://localhost/allaire/spectra/install/index.cfm

Starting the Webtop also launches the Macromedia Spectra 1.5.2 Migration Wizard.

8 Complete the steps of the Migration Wizard.

9 Verify that your Macromedia Spectra applications work correctly using the new security mechanism while running on ColdFusion 5.

Note: After installing Macromedia Spectra 1.5.2, your first requests to your application might take a few minutes while the new Macromedia Spectra pages are compiled.

For complete installation instructions, see the Macromedia Spectra Community Source Project website at http://spectrasource.macromedia.com/.

Restoring Macromedia Spectra 1.5.1 on ColdFusion 5

If you want to restore Macromedia Spectra 1.5.1 on ColdFusion 5, the directory c:\Program Files\spectra152updater (Windows) and /opt/spectra152updater (Solaris) contains your Macromedia Spectra 1.5.1 files before you installed Macromedia Spectra 1.5.2.

For more information on restoring Macromedia Spectra 1.5.1, see the readme.txt file in that directory.

Installing Macromedia Spectra on ColdFusion MX

If you want to use Macromedia Spectra 1.5.2 on ColdFusion MX Server Enterprise Edition, the computer must have ColdFusion 5 Server Enterprise Edition installed on it before you install ColdFusion MX. Macromedia Spectra 1.5.2 will not work on a computer that has not previously had ColdFusion 5 Server Enterprise Edition installed on it.

This section contains two installation procedures. The first procedure describes how to install Macromedia Spectra 1.5.2 and ColdFusion MX on a test server. Use this procedure to test that your Macromedia Spectra 1.5.2 applications work correctly on ColdFusion MX before installing Macromedia Spectra 1.5.2 and ColdFusion MX on your production servers. For more information, see “Installing Macromedia Spectra on a ColdFusion MX test server” on page 4.

The second installation procedure describes how to install Macromedia Spectra 1.5.2 and ColdFusion MX on a production server. Use this procedure after you have validated that your Macromedia Spectra 1.5.2 application works correctly on a test server running ColdFusion MX. For more information see “Installing Macromedia Spectra on a ColdFusion MX production server” on page 5.

Upsizing from Sybase SQL Anywhere

ColdFusion MX does not support Sybase SQL Anywhere databases with Macromedia Spectra 1.5.2. You must upsize any Sybase SQL Anywhere databases to an enterprise-class database such as Oracle, DB2, or SQL Server before installing ColdFusion MX.

Note: ColdFusion 5 with Macromedia Spectra 1.5.2 still supports Sybase SQL Anywhere. While Macromedia recommends that you upsize your databases from Sybase SQL Anywhere, you are not required to do so.

Installing Macromedia Spectra on a ColdFusion MX test server

Macromedia recommends that you use the following procedure to install Macromedia Spectra 1.5.2 on a test server running ColdFusion MX. This procedure ensures that you first get your Macromedia Spectra 1.5.2 application running on ColdFusion 5 before installing ColdFusion MX.

After migrating from ColdFusion 5 to ColdFusion MX, any issues that you find with your application will be caused by migration issues for ColdFusion MX, not by your Macromedia Spectra application. After you have your application running on a test server running ColdFusion MX, you can uninstall ColdFusion 5 from the test server and also install ColdFusion MX on your production servers.

To install Macromedia Spectra 1.5.2 on a test server:

1. Install Macromedia Spectra 1.5.2 on a computer running ColdFusion 5 Server Enterprise Edition and Macromedia Spectra 1.5.1. See the previous section for information on installing Macromedia Spectra 1.5.2 on ColdFusion 5.
2. Verify that your Macromedia Spectra applications work correctly.
3. Install ColdFusion MX Server Enterprise Edition.

   When the ColdFusion MX installer detects ColdFusion 5 on your computer, it gives you two options:

   - **Coexist** Lets you install and run ColdFusion MX on a computer running ColdFusion 5. ColdFusion MX uses its own built-in web server that you access on port 8500, in the form: http://localhost:8500.
   - **Upgrade** ColdFusion MX replaces ColdFusion 5.

   Macromedia recommends that you use the Coexist option when you install ColdFusion MX, so that you can test your application on ColdFusion MX while at the same time allowing you to continue to run ColdFusion 5. For more information on the install options for ColdFusion MX, see the book *ColdFusion MX Installation*.
4. Start the ColdFusion MX Administrator. Allow the ColdFusion MX installer to migrate your settings from ColdFusion 5.
5. Install the ColdFusion MX Updater. You can download the ColdFusion MX Updater from http://dynamic.macromedia.com/bin/MM/software/trial/hswsrec.jsp?product=cfmx_updater.

6 Add a virtual web mapping in ColdFusion MX that maps to the web root of your Macromedia Spectra 1.5.2 installation. For example, if you use IIS with ColdFusion 5, your Macromedia Spectra web root directory is c:\inetpub\wwwroot\allaire\spectra.

To create the virtual web mapping, edit the file *cfmx_installdir*\WEB-INF\jrun-web.xml to insert the following mapping:

```
<virtual-mapping>
   <resource-path>/allaire/spectra/*</resource-path>
   <system-path>c:/inetpub/wwwroot/allaire/spectra/</system-path>
</virtual-mapping>
```

7 Restart ColdFusion MX.

You can now access Macromedia Spectra 1.5.2 with ColdFusion 5 using the URL:

```
http://localhost/allaire/spectra
```

To access Macromedia Spectra 1.5.2 with ColdFusion MX, use the URL:

```
http://localhost:8500/allaire/spectra
```

8 Verify that your Macromedia Spectra 1.5.2 applications are compatible with ColdFusion MX.

Some tags, tag attributes, and functions that were available in ColdFusion 5 were deprecated or obsoleted in ColdFusion MX. When you migrate your existing ColdFusion Server 5 applications to ColdFusion MX, you might encounter incompatibilities between ColdFusion 5 and ColdFusion MX.

For more information on migrating applications from ColdFusion 5 to ColdFusion MX, see "Migration issues when moving from ColdFusion 5 to ColdFusion MX" on page 8.

9 After verifying that your Macromedia Spectra application works correctly on ColdFusion 5, you can remove ColdFusion 5 from your system.

10 Once you have removed ColdFusion 5, you can configure ColdFusion MX to use the ColdFusion 5 web server. For more information see the book *Installing ColdFusion MX* and the ColdFusion MX release notes.

Installing Macromedia Spectra on a ColdFusion MX production server

Macromedia recommends that you use the following procedure to install Macromedia Spectra 1.5.2 and ColdFusion MX on a production server. This procedure assumes that you have already tested your Macromedia Spectra 1.5.2 application on ColdFusion MX.

To install Macromedia Spectra 1.5.2 on a production server:

1 Install Macromedia Spectra 1.5.2 on a computer running ColdFusion 5 Server Enterprise Edition. For information on installing Macromedia Spectra 1.5.2 on ColdFusion 5, see "Installing Macromedia Spectra on ColdFusion 5" on page 2.

2 Install ColdFusion MX Server Enterprise Edition.

When the ColdFusion MX installer detects ColdFusion 5 on your computer, it gives you two options:

- **Coexist** Lets you install and run ColdFusion MX on a computer running ColdFusion 5. ColdFusion MX uses its own built-in web server that you access on port 8500, in the form: http://localhost:8500.
- **Upgrade** ColdFusion MX replaces ColdFusion 5.

Select the Upgrade option to replace ColdFusion 5 with ColdFusion MX. For more information on the install options for ColdFusion MX, see the book *ColdFusion MX Installation*.

3 Install the ColdFusion MX Updater. You can download the ColdFusion MX Updater from http://dynamic.macromedia.com/bin/MM/software/trial/hwswrec.jsp?product=cfmx_updater.

4 Verify that your Macromedia Spectra 1.5.2 applications are compatible with ColdFusion MX.

For more information on migrating applications to ColdFusion MX, see "Migration issues when moving from ColdFusion 5 to ColdFusion MX" on page 8.

Using Macromedia Spectra 1.5.2 on ColdFusion 5

Macromedia Spectra 1.5.2 is compatible with ColdFusion 5 Server Enterprise Edition. The most important difference between Macromedia Spectra 1.5.1 and 1.5.2 is that the new security model no longer requires Netegrity. Macromedia Spectra 1.5.2 contains new implementations of the security tags so you will not have to modify your applications to make use of the new security implementation.

Because Macromedia Spectra bypasses Netegrity, you can disable the Netegrity services on your computer as long as you are not using a Windows NT/2000 domain for a user directory. However, if you use a Windows NT/2000 domain for your user directory, you must continue to run Netegrity.

To shut down Netegrity, shut down the following services and configure them so they do not automatically restart when you restart your system:

- SiteMinder Authentication Service
- SiteMinder Authorization Service

Enabling Security Logging

To turn on security logging, set `securitylogging` to 1 in the page customtags/system/tier0/security/cfa_newinternaladminsecurity.cfm. A log file, named spectrasecurity.log, will be created in the ColdFusion logs directory. Note that enabling security logging will impact performance.

The following code sets `securitylogging` to 1:

```
<cfset securitylogging = 1>
```

Using Macromedia Spectra 1.5.2 on ColdFusion MX

Macromedia Spectra 1.5.2 is compatible with ColdFusion MX Server Enterprise Edition. This means you can migrate existing Macromedia Spectra applications to ColdFusion MX to take advantage of the new features that it offers.

The migration of an application from ColdFusion 5 to ColdFusion MX requires that you be aware of new functionality offered by ColdFusion MX and of any incompatibilities between ColdFusion 5 and ColdFusion MX.

The following sections describe how to administer the security mechanism, some of the new features available to you in ColdFusion MX, and migration issues that you might encounter as part of that migration.

Configuring security on ColdFusion MX

The ColdFusion MX Administrator does not contain options for configuring advanced security, as does the ColdFusion 5 Administrator. Therefore, you must use the Macromedia Spectra 1.5.2 Webtop to configure security to perform the following:

- Adding, removing, and modifying Macromedia Spectra users and user groups.
- Setting the security for website components, such as website pages, ContentObject types, and the Webtop itself.
- Backing up the security databases.

  Macromedia Spectra does not provide a built-in utility to back up the security databases. For information on back up, see the documentation for your database or LDAP server.

Note: Because you use the Webtop to manage security, you do not have all of the options that were available in the ColdFusion 5 Administrator. For example, you cannot edit individual security policies in the Webtop.

You can also enable security logging by setting `securitylogging` to 1. For more information, see "Enabling Security Logging" on page 6.

New features of ColdFusion MX for Macromedia Spectra customers

ColdFusion MX contains many new features that you might find useful in your Macromedia Spectra applications. For a complete description of ColdFusion MX, go to the ColdFusion MX website at http://www.macromedia.com/software/coldfusion/.

The following table contains a list of some of the most important new features of ColdFusion MX:

Feature	Description
Easily work with XML data.	Integrate with XML just like any other data source using built-in document parsing, XSL transformations, and automated serialization of data into XML.
Build advanced applications with ColdFusion components.	Create self-documenting, reusable components using standard CFML. ColdFusion components take custom tags to the next level by letting you write a component once and then access it from a ColdFusion page, a Macromedia Flash client, or as a web service.

Feature	Description
Effortlessly consume or publish web services.	Invoke web services from your applications with a single line of code, or publish your own using ColdFusion components and a standards-based web services engine.
Experience the power of Java, without the learning curve.	ColdFusion MX combines the power of the Java platform with the ColdFusion ease of use. Develop and deploy ColdFusion applications with the stand-alone ColdFusion MX Server or deploy on leading J2EE application servers with the ColdFusion MX Server for J2EE Application Servers product line.
Make your sites more compelling with dynamic charting and Macromedia Flash Remoting.	Easily create rich applications with a fast, secure protocol for passing data from ColdFusion MX Server to Macromedia Flash clients and full support for ColdFusion debugging in the Macromedia Flash MX authoring environment. Use enhanced charting capabilities, including support for multiple data series, fully customizable output and report types, batch reporting, and drill-down functionality.
Develop faster with powerful new debugging capabilities.	Find errors faster with enhanced error messages, customizable tracing, and better output organization–all accessible from inside Dreamweaver MX.
Internationalize your applications.	Build applications that support character-based languages, such as Chinese, Japanese, or Korean, with built-in Unicode support.
Reuse JSP tag libraries like ColdFusion custom tags.	Increase productivity by reusing Java components within ColdFusion. Import JSP tag libraries and use JSP tags just like ColdFusion custom tags, or integrate CFML pages with Java servlets.

Migration issues when moving from ColdFusion 5 to ColdFusion MX

When you migrate your existing ColdFusion Server 5 applications to ColdFusion MX, you might encounter incompatibilities between ColdFusion 5 and ColdFusion MX. Whether you encounter incompatibilities depends on the features of ColdFusion and the CFML elements that your existing applications use. Macromedia strongly encourages you to develop a migration plan for porting existing ColdFusion 5 applications to ColdFusion MX.

The book *Migrating Macromedia ColdFusion 5 Applications* lists all of the known incompatibilities that you might encounter, and suggests possible fixes. You can find the *Migrating Macromedia ColdFusion 5 Applications* book at http://download.macromedia.com/pub/coldfusion/documentation/cfmx_migrating.pdf. You can find all ColdFusion MX documentation at http://www.macromedia.com/support/coldfusion/documentation.html.

To isolate compatibility issues between ColdFusion MX and ColdFusion Server 5, you use the Code Compatibility Analyzer included with ColdFusion MX. Based on diagnostic information, the Code Compatibility Analyzer issues error and information messages to alert you to possible compatibility issues.

The Code Compatibility Analyzer detects the following issues:

- Obsolete CFML features in ColdFusion MX
- Deprecated CFML features in ColdFusion MX

- CFML features that might produce different behaviors in ColdFusion MX
- CFML syntax errors

You access the Code Compatibility Analyzer from the ColdFusion MX Administrator.

What's next for Macromedia Spectra?

The Macromedia Spectra Community Source Project website at http://spectrasource.macromedia.com/ is the location for all future updates and bug fixes for Macromedia Spectra. Monitor that website to keep up to date with all future updates.